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Publisher: Routledge

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The Journal of Peasant Studies

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/fjps20>

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Published online: 05 Feb 2008.

To cite this article: Ben Cousins (1996) Livestock production and common property struggles in South Africa's agrarian reform, *The Journal of Peasant Studies*, 23:2-3, 166-208, DOI: [10.1080/03066159608438612](https://doi.org/10.1080/03066159608438612)

To link to this article: <http://dx.doi.org/10.1080/03066159608438612>

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Livestock Production and Common Property Struggles in South Africa's Agrarian Reform

BEN COUSINS

INTRODUCTION

Recent research on livelihoods in those parts of South Africa under forms of communal tenure has pointed to the central importance of the local natural resource base in sustaining rural households [Levin and Weiner, 1994; LAPC, 1994]. This is true despite the much larger amounts of household income derived from migrant worker remittances, state pensions, and other non-rural sources, than are derived from local production and direct provisioning from the natural environment. Studies of water resources [Forster, 1994; Woodhouse, 1994], woodlands [Gandar and Christie, 1994], communal grazing land [Scholes, 1994], and wild foods and medicinal plants [Cunningham, 1985] have explored the use of these resources within multi-faceted systems of provision. It is likely that they are particularly important for the poorest rural households [May *et al.* 1995].

A second dimension of natural resource use in rural South Africa is the political/institutional. Customary controls on resource use have been undermined by the imposition of authoritarian forms of local governance [Cross and Haines, 1988; de Wet, 1991; McAllister, 1992], and the creation of strong, democratic institutions of local government is widely seen as fundamental to the emergence of viable resource management regimes [LAPC, 1994]. A third dimension is the ecological: stress on livelihoods has in turn contributed to stress on the resource base, and signs of environmental degradation have led to fears that current patterns of land use and resource utilisation are not sustainable [LAPC, 1994].

At present all three dimensions are subject to uncertainty, as a result of: (a)

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incomplete knowledge and understanding of the economic, political, institutional and ecological processes which have brought about the observable patterns described in the literature; (b) uncertainty as to how these patterns and processes will be affected by government policies and programmes – such as the Reconstruction and Development Programme (RDP) – which attempt to restructure rural social relations through redistribution of land and the creation of democratic forms of rural local government. Past neglect of black rural social and ecological realities by researchers has contributed greatly to the former; the inherently fluid and contingent nature of the current conjuncture is the primary reason for the latter.

In relation to land reform, there are signs that rural people are becoming impatient with the slow pace of implementation of programmes for land restitution, redistribution and tenure reform. Land invasions are threatened in a number of districts; in others there is tension and conflict over land claims and boundary disputes; labour tenants are organising large protest marches and lobbying for government support; and negotiations between contending parties are taking place on these and related issues in many parts of the country. Land struggles of one kind or another are thus a central feature of the post-apartheid era.

Some of these struggles are over access to and control over land in general; others are directly concerned with common pool resources such as water, woodlands and grazing. This article focuses on contemporary conflicts over livestock and rangeland resources, and suggests that the roots of these struggles lie not only in the inequitable distribution of land due to past policies of segregation and apartheid, but also in the multiple functions of livestock within complex livelihood systems, and their role in the dynamics of social differentiation. Data and perspectives from livestock and rangelands research in both South Africa itself and in other parts of Africa are referred to when relevant.

The political and institutional dimensions are central to any discussion of common property regimes, and theoretical perspectives from the wider literature are brought to bear on the specificities of South Africa. Several distinct axes of struggle over common property are identified, and the complex interactions between the economic, ecological and political/institutional dimensions are explored in two detailed case studies from the Eastern Cape and Kwazulu-Natal. These provide general lessons for the political economy of common property regimes within South Africa's agrarian reform.

CONCEPTUAL ISSUES: COMMON PROPERTY MANAGEMENT

Common Pool Resources and Property Regimes

Common pool resources are those which are used or can potentially be used

by more than one agent, either simultaneously or sequentially, and where exclusion from the resource is difficult or costly to achieve [Ostrom, 1986]. Different kinds of institutional arrangements to manage such resources are feasible, and there is debate on the question of which is most appropriate: a private market, or state ownership and regulation, or what is known as a common property regime.¹

In the latter a defined user group limits access by outsiders and defines rules for resource use by insiders. Proponents of common property point to the existence of viable, longstanding institutional arrangements of this kind in many parts of the world, in relation to the utilisation of many different kinds of common pool resources – for example, water, forests, wildlife, fisheries, and grazing land [National Research Council, 1986; McCay and Acheson, 1987; Bromley and Cernea, 1989; Bromley, 1992]. Most commentators agree that a fourth alternative, open access, characterised by the absence of any distinct group of owners or users with defined rights and duties, is least desirable because it does not allow for any form of planned management. Nevertheless, the literature describes many situations where common property or state property arrangements have broken down and open access obtains – giving rise to the gloomy prognosis sometimes known as ‘the tragedy of the commons’ [Hardin, 1968].

Swallow [1990: 3–4] summarises the differences between common property and open access as follows: in a common property regime: (1) no single individual has exclusive rights to the use of the resource, (2) group members have secure expectations that they can gain access to future use of the resource, (3) there are functioning membership criteria, (4) there are communally-defined guidelines for resource use, and (5) there is an enforcement mechanism for punishing deviant behaviour. Relatively few African rangeland situations appear to satisfy all the conditions for common property, and conditions (4) and (5) appear to be the most problematic [Swallow, 1990: 22].

Lawry [1990: 5], distinguishes between a ‘minimum’ definition of common property and those arrangements needed to regulate more intensive use of resources. A ‘minimum’ definition is met where group membership rules are well defined and non-members are excluded from common resources. Lawry suggests that these arrangements have often been adequate when pressure on resources was not excessive, but that intensified controls and their enforcement become necessary with population growth, technological change, national economic integration and the decline in the political legitimacy of local institutions. However, the evolution of more intensive common property regimes is problematic given these conditions: ‘fundamental changes in rural economies’ have led to an erosion of the ‘social and economic bases for collective control of individual use’ [*ibid.*,

24; see also Swallow, 1993: 16–17].

Where common property rules break down or fail to evolve to fit changing conditions, then several outcomes have been observed: one may be increased resource degradation as the property regime slips towards open access [Vedeld, 1992: 8], another is ‘spontaneous enclosure’ or privatisation [Behnke, 1988; Graham, 1988], yet another is the capture of the commons by groups of commercial producers [Lawry, 1990: 18; White, 1992: 51] who may pursue private accumulation strategies in the name of community development [Cousins, 1992b: 68]. None of these is particularly attractive as a ‘solution’ to problems of common property management.

This suggests that attempts to achieve a better fit between contemporary social, economic and political conditions and modified common property arrangements are worth pursuing. Where groups of resource users are asserting their desire to seek such solutions, as appears to be the case with many communities claiming land in South Africa, then the case for doing so is even stronger. However, a number of critical issues will need to be confronted.

Critical Issues in Common Property Regimes

(i) *The definition of user groups*: At minimum common property regimes define who is allowed access to resources and who is excluded, and membership criteria must therefore be clarified, including the rights and duties of absentee members of rural communities or other groupings. The question of whether or not membership of the user group is compulsory must also be confronted. Oakerson refers to these as ‘entry and exit rules’ [1986: 17]. The size of the user group is critical [Wade, 1987; Ostrom, 1986], since transaction costs are lower in smaller and more cohesive groups. As Murphree [1993: 7] observes, ‘... a communal resource management regime is enhanced if it is small enough (in membership size) for all members to be in occasional face-to-face contact, enforce conformity to rules through peer pressure, and has a long standing collective identity’.

It is important to have a clear understanding of socio-economic structure and its effect on resource use [Ostrom, 1986; Peters, 1986; Cousins, 1992b]. A heterogeneity of interests within user groups presents potential difficulties [Lawry, 1990], although potential conflicts between uses of a resource (for example, between cropping and grazing of wetland areas) and between different categories of users (for example, commercial versus subsistence producers) can be defused through negotiation. The ‘capture’ of common property regimes by powerful elites is a potential problem [Lane and Moorehead, 1995: 131].

(ii) *Resource management rules*: Operational rules govern the way that a common pool resource is used; these involve the definition of jurisdictional

boundaries, and the partitioning of resource use ie. limiting where, when and to what degree resources can be exploited by group members, as in a grazing rotation [Oakerson, 1986]. Ostrom [1986: 611–13] suggests a number of other considerations in relation to common property rules: rules should be clear-cut and unambiguous, so that all members can know and agree upon them; the fewer rules there are the more likely it is that they will be followed; rules should be clearly enforced by officials, and will be more effective if backed by the imposition of mild social sanctions.

(iii) *Innovation and 'traditional' institutions*: The question of combining elements of 'customary' common property regimes with emergent formal institutions is important because the former often persist in one form or another and remain meaningful to rural communities. Some aspects of production are still organised through such aspects of social organisation as kinship networks (for example, sharing access to draught animals – see Muchena [1989]; McAllister [1992]). Customary institutions for regulating resource use are often kinship-based, are also territorial in nature, and may be combined with formal institutions set up by the state (for example, grazing scheme committees) in hybrid or 'mixed' institutions [Swift, 1995: 4–5; Cousins 1989: 349]. These institutions may prove appropriate for three aspects in particular: defining group or 'community' membership; resolving conflicts at the local level and defining sanctions for rule infringements; and defining rules for resource management based on local knowledge.

(iv) *Institutional hierarchies*: There is a need to consider the 'nesting' of local institutions within larger structures [Ostrom, 1986: 612], and to think through relations between levels within a hierarchy of institutions and organisations dealing with natural resources [Swift, 1995]. Lawry argues that the state has a definite role to play in creating the conditions for effective local management, through '... clarifying group territorial rights, adjudicating boundary disputes, and providing technical assistance to local groups attempting to intensify management' [Lawry, 1990: 23]. State policies can also help improve the economic incentives for collective action for example, through offering preferential marketing rights to groups managing common pool resources. More importantly, government can assist in enforcing resource management rules which have broad local support but cannot be made effective because community authority is not in itself strong enough. This has been termed a 'co-management' approach.

Swift [1995] offers a contrasting emphasis on the need to 'roll back the frontiers of the state' in pastoral regions in Africa, suggesting that an important principle to follow in institutional development is that of subsidiarity that is, '... administrative tasks should be carried out as near to

the level of actual users of resources ... as is compatible with efficiency and accountability'. The advantages are potential gains in efficiency, savings in administrative costs, and the possibility of '... a more flexible institutional response to the management needs of a dynamic ecosystem' [*ibid.*: 158–9]. This perspective is an important reminder that co-management arrangements should aim at defining an enabling, facilitative and back-up role for the state rather than one which replaces or undermines local institutional capacity.

(v) *The policy and programme environment*: To support the evolution or establishment and effective functioning of common property regimes, an enabling policy and programme environment is needed. This will involve creating an appropriate legal framework, giving legal identity to common property arrangements which evolve at the local level but without imposing rigid and restrictive structures. It should also make available support services which assist communities and groups to design their own appropriate institutional arrangements, using a facilitative and processual approach, and provide appropriate rule enforcement procedures at higher levels in the institutional hierarchy to back those which prove ineffective at lower levels. To constrain the possibility of elite capture, external authorities should hold a brief for democratic processes which guarantee the rights of the less wealthy and powerful (including women and youth) to an effective say in decision making, and this may be included as one dimension of the enabling legal framework. Conflict resolution within and between user groups, through negotiation, mediation or arbitration, will be another role for external bodies.

LIVESTOCK PRODUCTION AND ECOLOGICAL DYNAMICS ON COMMUNAL RANGELAND IN AFRICA

Where extensive livestock production is a central component of livelihood systems, as in large parts of Southern Africa, there are distinct economic and ecological advantages to common property institutions. There are several reasons for this.

Firstly, livestock herds within village economies are often multi-purpose in character and yield high rates of economic return per hectare when all their functions are valued. The economic value of livestock output from communal herds in Africa is often much higher than that from commercial ranches [Barrett, 1992; Behnke, 1985a; de Ridder and Wagenaar, 1986; Jackson, 1989; PDN, 1992; Scoones, 1992].

Secondly, for multi-purpose herds high stocking rates make economic sense, and optimum stocking rates in these systems will be higher than those

in single purpose (for example, beef) production systems; furthermore, these high stocking rates may well be ecologically sustainable. This is because livestock herders pursue 'opportunistic' strategies, based on mobility, to optimise their use of the variability of African rangelands [Sandford, 1983]. Variability occurs over both space and time, and at both the macro-scale (for example contrasts between clay veld savanna and sand veld savanna, or 'sweetveld' and 'sourveld'), and at the micro-scale (for example, between riverine areas and toplands). There is seasonal variation in forage availability, and interannual variability in the amount of rainfall occurring in different parts of a landscape. Rangeland environments are thus 'patchy', and an accumulating array of evidence has shown how pastoralists and agro-pastoralists in Africa make use of this patchiness to sustain high stocking rates [Fry and McCabe, 1986; Scoones and Wilson, 1989; Scoones, 1990; Oba, 1992].

Thirdly, environmental variability means that high stocking rates will be facilitated by a property regime which allows flexible access to different habitat patches within rangelands by numerous individually-owned herds that is, within a common property regime.

Fourthly, ecological dynamics in arid and semi-arid rangelands with particularly high rates of variability in rainfall may be *non-equilibrial* in character that is, driven by episodic events such as droughts or fires, and thus '... the condition of [a] grazing system at any particular time is determined more by the chance occurrence of non-biological events than by interaction between the biological components of the system itself' [Behnke and Scoones, 1993: 9; also Ellis and Swift, 1988; Westoby et al. 1989]. In these systems opportunistic strategies involving a great deal of mobility require a regime of property rights which provides '... security of tenure while permitting flexibility of use patterns' [Behnke and Scoones, 1993: 30].

These emerging perspectives on African communal rangelands have several implications for policies and programmes promoting common property regimes. One is that external interventions to force down stocking rates against the will of livestock owners will be resisted and are both unnecessary and unlikely to succeed. Authority over such matters should be left to local institutions. Recognising the spatial heterogeneity of rangeland resources implies that herd movement as a management strategy should be accepted and facilitated, rather than suppressed, and herders be encouraged to co-ordinate movement and agree on access to key rangeland resources at different times of year and in different years. The possibility of conflict over such access must be recognised, however, (particularly in drought years – see Oba [1992]) and institutional mechanisms designed for negotiation, mediation and conflict resolution.

Spatial heterogeneity occurs at different scales (at local, regional and national levels), and its nature varies with agro-ecological zone. The extent of herd mobility will thus also vary between years and between zones; the implication is that a hierarchy of institutions will be needed to negotiate and co-ordinate access and help resolve conflicts [Swift, 1993], and that this probably calls for the involvement of government agencies and state legal authorities. Thus 'co-management' models will probably be appropriate, even when the importance of building strong local institutions is affirmed [Lawry, 1990].

The distinction between equilibrial and non-equilibrial systems has important tenure implications. In the former there is direct feedback between animal numbers and vegetation states, successional processes can be identified, and conventional notions of carrying capacity are relevant [Behnke and Scoones, 1993: 12]. *Exclusive* forms of common property are appropriate, in which boundaries between user groups are clearly defined and enforced, and management rules take into account the internal heterogeneity of resources important for herd mobility at the local level [Scoones, 1989; Cousins, 1992b]. In non-equilibrium situations 'opportunism' will be more important as a strategy, and *non-exclusive* forms of tenure will be more appropriate. These allow co-ordinated access to the heterogeneous patchwork of resources at a larger scale, within a framework of a great deal of temporal variation.

AXES OF STRUGGLE OVER COMMON PROPERTY

This discussion of critical issues in common property regimes in general, together with a consideration of central aspects of African livestock systems on communal rangelands, helps define certain potential axes of struggle over common property arrangements. These will be useful in analysing the South African case study material presented below. Struggles may take place over:

- (i) *gaining rights to the use of common pool resources*: as when access to traditional commonages has been lost through dispossession or legislation, and re-establishment of legitimate access is sought;
- (ii) *defining the membership of the user group which has rights (and corresponding duties)*: this may be contentious in situations of high social and physical mobility, or where dispossession took place decades ago (both relevant in South Africa);
- (iii) *defining and defending the boundaries of territories within which common pool resources exist*: exclusion is a central feature of common

property, but is often disputed by groups or individuals without rights of use. Boundary disputes are common, but may result in negotiations over temporary use arrangements. Non-exclusive and co-ordinated access forms of tenure may be more appropriate in drier areas, but reaching agreement on timing and rates of utilisation is often difficult;

- (iv) *agreeing on operational or management rules for resource use*: since rules may involve limitations on use, or contributions of labour or cash for maintenance of the resource, they may well be contentious within the user group, particularly when the group is heterogeneous in its composition;
- (v) *assignment and use of authority for rule enforcement*: policing and the imposition of sanctions is required to maintain the integrity of the property regime, and contestations over the legitimacy of the agents with these responsibilities may occur;
- (vi) *relationships with external authorities*: disagreements often occur between user group members and external agents with responsibilities or powers in relation to resource management, and are exacerbated when issues such as stocking or offtake rates are at stake.

As described below, struggles along many of these axes are evident in the South African countryside at present.

LIVESTOCK PRODUCTION AND RURAL LIVELIHOODS IN CONTEMPORARY SOUTH AFRICA

How important is livestock production off communal rangelands within the livelihood strategies pursued by rural black South Africans, and what is its character? This section reviews contemporary studies² of livestock and rural livelihoods, and discusses these region by region.³ A conceptual model of livestock production is then presented which attempts to capture some key characteristics while taking account of the wide degree of heterogeneity displayed.

The Multiple Functions of Livestock

Kwazulu: Researchers in different regions have come to contrasting conclusions concerning the most important function of stock in black rural areas, but few have attempted an analysis of the livelihood system as a whole. One exception is Tapson [1990; 1991], who analysed national cattle herd statistics for Kwazulu as well as 1983 survey data for the Ogwini and Mabeldlana areas. These show that there is a great deal of activity into and out of herds, and that total offtake exceeds that of a commercial ranch herd.

However, sales for cash are a minor component, more important being consumption activities such as slaughter, *lobolo* (bride-wealth), and mortality. Herdowners who were interviewed identified milk supply as the single most important reason for keeping cattle. Offtake in the form of *lobolo* exceeded sales or slaughter, but slaughter rates were ten times higher than sales rates, and in 77 per cent of cases slaughter took place 'for custom or celebration'. This ensures a regulated supply of meat without waste. Tapson identifies mortality as a consumption variable, using the argument that holding on to animals that may die is a rational decision to insure against risks of herd loss. He also argues, although without presenting data on its incidence, that loaning (*ukusiza*) distributes benefits through the community, that the prestige this confers on owners is itself a good, and that borrowing animals for ploughing involves reciprocal obligations.

Tapson concludes that cattle in Kwazulu represent non-human wealth which is consumed by households, ie, they are high value Z-goods, and perform the functions of cash, savings, consumer durables, equity and property investments. The most valued output is milk, and if anything the Kwazulu herd is a dairy herd rather than a beef herd. The objectives of herd owners are to improve the yield of consumable products, and to increase the size of the 'investment portfolio' for security. Tapson finds that cattle were not valued as draught animals by his respondents, and argues that survey data which revealed that 68 per cent of herds had less than two draught oxen (when four are generally needed for ploughing) support this view. However, this ignores borrowing or hire of draught animals and combining oxen from different herds to form a ploughing team, and respondents' views may have reflected the fact that draught is a self-evident value [Tapson, 1990: 158]. Tractor ploughing services were also subsidised by the Kwazulu Government at the time (Tapson, personal communication). Nevertheless, the possibility of an absolute shortage of draught oxen in the survey areas should not be discounted.

Gandar and Bromberger [1984] report that in Mahlabatini District in 1981, where 81 per cent of households owned at least one head of cattle (although 71 per cent owned 10 or less), sales were negligible and slaughter rates were also low. They emphasise the importance of milk production, estimating output at 550 litres per annum per household; at local prices the value of milk production was higher than that of egg and crop production combined, and it was of particular importance to households in drought years. Crop output was generally poor in this district, with 92 per cent of households not able to produce the minimum household requirement. Cattle were an important store of wealth, the value of the average cattle holding (8.35 head) being equivalent to the average household cash income over 2.5 years. Draught power was another key function of cattle, but there was a

shortage of draught power overall, and herds were too small to provide both replacement and a full range of subsistence needs. Half the households in the sample also owned small stock, mainly goats. Remittances and pensions were the most important sources of cash income in the area, and constituted 60 per cent of total income.

Colvin [1985] investigated cattle marketing, and interviewed 480 sellers of cattle at 20 auction venues, mainly in northern Zululand. Almost without exception these sales arose from 'compelling economic circumstances that forced owners (in spite of the long term disadvantages) to sell one or more head ... [for] pressing subsistence needs'. He identifies marked regional variations in levels of sales: 85 per cent of recorded sales in Kwazulu are in only three of its 26 magisterial districts, where sales are held at frequent intervals and auctions are well attended.

Auerbach *et al.* [1991] explored the demand for draught power from oxen and from tractors in two areas, Nhlanguwini and Biyela. In Nhlanguwini draught animals were involved in the cultivation of fields, either alone or in combination with hand hoes and tractors in 85.4 per cent of cases. Average ownership of oxen per household was 1.2 oxen. In Biyela, where average ownership of oxen was 1.9 head, 82 per cent of those who ploughed their own fields did so with oxen, and 62 per cent of those who hired contractors used oxen for ploughing. Taking observed ploughing performance into account, in relation to arable land under cultivation there was an excess of animal draught power available in these locations, which did not suggest a significant potential market for the services of tractor contractors. These data suggest that draught is an important function of cattle in many areas.

Transkei: In the Shixini area in the Transkei Heron [1990] analysed the impact of cattle holding on crop production in a sub-ward where 73 per cent of adult males were migrants in South Africa. Although remittances were the principal form of income, agricultural production for home consumption was also important for people, and continued to be organised partly through co-operative arrangements such as work parties and 'ploughing companies'. There was a shortage of cattle and implements, and since tractors were scarce, 62 per cent of households obtained access to draught through the 'ploughing companies'. Unlike the work parties these were organised through kinship networks, and 92 per cent of members were related to the head of the company. These were usually the people who contributed most cattle and implements, and who thus ploughed at optimum times. Partly for this reason, and partly due to increased supplies of manure, maize yields were positively correlated with stock holdings, as was the area of land cultivated.

Heron points out that a factor influencing rural production is phase in the

domestic developmental cycle, although he agrees with Spiegel [1982] that this needs to be analysed in relation to structural factors in the wider political economy (see also Murray 1981). If we relate this to livestock, cattle may be more important for production in the years in which a young migrant is building up a rural household base, but 'retirement fund' attributes may be more crucial in later years when children are establishing their own households (see Ferguson [1990] for Lesotho).

Beinart's [1992] review of Transkei data stresses the continuing relevance of the multiple functions of cattle ('investment, bridewealth, draught and milk'), but also the shifts in relative importance of different functions over time – for example, possibly a decline in draught provision as tractor ploughing has spread. However, he cites a study in the coastal Bizana district where most households still had access to land and were effective food producers; here almost all ploughing was done by oxen [*ibid.*: 185]. No clear overall picture emerges, but evidently there is a great deal of regional variation in respect of the importance of draught power provision by livestock. Beinart also points to the class formation processes in homelands which result in businessmen and civil servants investing part of their earnings in agriculture (and, by implication, in herds of livestock).

Gazankulu: The relative importance of livestock functions probably varies with the distribution of stock and the class identity of livestock owners, as illustrated in Ritavi 2 in Gazankulu in the 1980s. Van der Waal [1991] describes a typical 'homelands' scenario where 'development ... seems to function primarily in the interests of the state, members of the emerging upper middle classes (businessmen, government officials and tribal leaders), metropolitan industrialists and a white farmer'. Agricultural projects in the district included large scale government-run plantations (sisal, citrus, etc.), a maize project and irrigation scheme for the 'better farmers' (0.17 per cent of the population, mainly those with access to capital such as the chief and his relatives, businessmen, etc.).

Within Tiekiele settlement in Ritavi 2, differential access to wages, the main form of cash income in this labour reserve, was partly reflected in possession of cattle. Here 203 cattle were owned by 15 men (out of a total of 79 'economically active' men and 108 such women), and a further 203 were owned by two businessmen from outside the settlement. One of these was a relative of the chief, and his cattle had exclusive access to 200 ha of fenced grazing and an irrigation dam. In this situation the meagre dryland cropping engaged in by residents was not well integrated with cattle keeping – ploughing was done by donkeys, or by hiring in plough teams and (in 1988/89) government tractors for those few who could afford the payments. Cattle in this situation appeared to function mainly as a source of savings

(small herd owners) or investment (larger herds).

Fischer [1987] describes the class-biased nature of a livestock development scheme in another part of Gazankulu, in the Seville settlement in Mhala district. Former labour tenants on Seville farm were subject to betterment planning in the 1960s, and between 1971 and 1981 had 1000 ha of their communal grazing allocated to a commercial cattle development scheme. Membership requirements (six brucellosis-free animal units) excluded almost all residents, and by 1985 the scheme had not yet reached its target of twenty members; more than half of the 120 cattle on the scheme were owned by one man. For this minority the commercial functions of cattle were prominent.

The other residents (in a total of 60 households) were restricted to 600 ha for residential, arable and grazing land for their 205 cattle and 204 goats, which were themselves distributed in a highly skewed manner. Only five households owned more than ten cattle, and three owners between them owned 52 per cent of all cattle. Only the largest herd owner sold animals regularly; the majority kept cattle for draught provision, investment and security. Cattle sales were often an emergency measure when other savings were exhausted or when school fees were urgently needed. Goats were an alternative investment for similar purposes. The importance of cattle for draught power provision in Seville is emphasised by Fischer. Cultivation was restricted after a drought in which cattle died or were weakened, 'since only expensive tractor power was available', and virtually all households resumed cultivation when cattle numbers rose again after residents had used other income to invest in animals. As in the Transkei, stockless households gained access to draught through joining ploughing teams and contributing their labour.

Lebowa: Vink [1986] provides data on the skewed distribution of livestock in Lebowa in 1984/85, when only 29.2 per cent of all rural households owned any animals at all, and 34.4 per cent had access to only residential land. Only a fifth of all rural households had access to all three traditional land rights (arable, grazing and residential). Owners of small cattle herds (<9 head) constituted 18 per cent of rural households and owned between a third and a half of all cattle, averaging 4.1 cattle each. Owners of large herds (>9 head) constituted four per cent of rural households and owned between a half and two-thirds of all cattle, averaging 18.6 cattle each (or 38.72 if two exceptional cases are included). Large herd owners had significantly higher incomes and net worth than other groups.

Other studies cited by Vink show that large owners were drawn from the ranks of tribal leaders, elders, and councillors, and probably also from homeland businessmen. According to Vink, tribal leaders had gained

political power within the homeland and were using their control over the allocation of land rights to entrench their own privileged position. Take-off from all herds through commercial sales was low (less than 7.5 percent), and Vink concludes that the motives of large herd owners was not primarily to earn cash income from cattle, but to seek the benefits of investment, milk and meat supply, prestige and the maintenance of tribal customs. High stocking rates on Lebowa's rangelands are ascribed to a 'tragedy of the chiefs' rather than a 'tragedy of the commons'.

Bophutatswana: Does the relative importance of different livestock functions vary with agro-ecological zone? Data for the Dryharts area of Taung district in the former Bophutatswana, quoted by Schmidt [1992] shows that offtake from sales in 1989 was 6.8 percent, much higher than the 0.8 per cent for Kwazulu herds reported by Tapson [1991]. Sales and slaughter together increased offtake to 10.35 percent. Although Schmidt does not report the annual rainfall in Dryharts, it is presumably in a dry (possibly semi-arid) zone, and relatively high take-off may reflect a greater emphasis on sales of stock. Unfortunately Schmidt also does not make any mention of cropping, and it is thus difficult to evaluate his informants reported 'reasons for keeping cattle', in which there is no mention of draught. Despite the resulting ambiguity Schmidt's results are interesting: milk consumption is rated as most important, with emergency sales (that is, savings) in second place. Schmidt's analysis emphasises the rationality of storing wealth in the form of cattle, both for savings and investment purposes, with the added advantage of increased prestige, and provides insight into one reason why stocking rates in the area are so high (245 per cent of recommended rates).⁴

Also for Bophutatswana, Groenewald and Du Toit (1985) surveyed 511 cattle owners, and report sales figures of over ten per cent in certain districts. Ninety per cent of respondents said that they obtained milk from their herds, and 27 per cent that they sold milk. Over 70 per cent sold meat or cattle – a much higher proportion than reported elsewhere. Another possible factor influencing livestock functions is herd size. In this survey sales from herds of twenty or less were lower (33–53 per cent of respondents) than from larger herds of 20 or more (80–100 per cent of respondents). Colvin [1985], however, cites evidence from communal land herds in Swaziland that offtake was highest from small cattle owners (less than 17 head) in the lowveld and highest from larger herd owners (17 or more head) in the highveld (data taken from Low and Fowler [1980]). He argues that lowveld owners rely more on sales of cattle to meet their basic needs than do highveld owners, who have greater access to crop income and wage earnings, and that higher selling rates from small herds arise from the

greater proportional effect of forced sales to meet essential needs. There is thus contradictory evidence on the effect of herd size on importance of function (see also Vink [1986: 132]).

Livestock and Social Relationships

These studies provide evidence on the skewed distribution of livestock within rural communities, and the growing proportion of stockless households. Some examine the social relationships that provide these households with access to animals for important functions such as draught – see Heron [1990] and Fischer [1987]. McAllister [1986] describes these arrangements, and the central role of livestock in social life in general, in Shixini ward in the Transkei, where ‘betterment’ had not yet been implemented:

People give and receive stock on loan, pay for various services (such as that of the diviner or herbalist) with stock, make and receive stock prestations, *ngoma* (lend or put out) their cattle to other homesteads, are involved in bridewealth transactions, help each other meet bridewealth obligations, etc. Homesteads group their cattle together for herding purposes, and combine them in ploughing groups [*ibid.*: 472–3].

McAllister cites evidence that one of the effects of the relocation of households entailed by ‘betterment’ planning has been to disrupt such relationships (for example, in one area *ukungoma* was no longer practised). It is therefore not clear to what extent these arrangements survive or have been modified in the numerous rural communities subjected to ‘betterment’ or other forms of forced resettlement.

Although he does not provide quantitative data, Tapson [1991] stresses the continuing importance in Kwazulu of lending (*ukusiza*), reciprocal obligations when draught animals are borrowed, and redistribution of benefits through the sharing of meat from slaughtered beasts. Tapson’s survey also revealed the extent of *lobolo* exchanges involving cattle in Kwazulu – these were the largest single type of transaction, and payments and receipts accounted for 4.2 and 5.8 per cent of the total herd in the survey. Even larger numbers of animals had been committed for future payments – 11.2 per cent of the herd was recorded as debits and 12.7 per cent as credits [*ibid.*: 11].

Not all studies agree that these kinds of practices survive. Karaan *et al.* [1993] report a survey finding in Lebowa that nearly half the respondents rated the ‘commercial’ function of livestock to be the most important, followed closely by ‘wealth’, with very few rating ploughing, rituals, bridewealth or prestige as important.

Few studies have taken gender relations into account. An exception is

Ferguson [1990], whose analysis for Lesotho probably has great relevance for South African rural areas where migrant labour has also been a dominant feature. In this view men and women have different interests with regard to livestock-as-retirement-fund. Men build up the mystique of livestock ownership in order to protect their stored assets for the future, but women attack this mystique to assert their claims for cash to meet the immediate needs of the household, which is their domain of responsibility. Although male and female interests clearly do not conflict in respect of ownership of stock as such, and older women share a direct interest with older men in the high levels of bridewealth which the mystique helps to maintain, Ferguson suggests that the cultural definition of livestock as a particular kind of property generates contestation at both the ideological and the immediate economic level. This can lead to tensions within the household around decisions on whether or not to sell an animal. Recently the Rural Women's Movement has made demands for women to be allowed to make decisions about livestock and to have access to land for grazing and cattle posts [TRAC, 1993]. This is an indication that gender struggles may assume a growing importance in rural South Africa in future, and are another factor that may influence the social and economic role of livestock.

Summary

Livestock production in black rural areas today continues to be multi-purpose in character, but which functions are important depends on a number of factors. One influence is agro-ecological zone: livestock sales for cash may be more important in dry areas with poor cropping potential than elsewhere. Another is the economic profile of the region: using cattle for draught power is less important in areas where tractor services are available and affordable, and more important where they are not and where land availability makes cropping a viable option. A function of cattle which is important in most areas is milk production for home use. Livestock continue to be a useful form of savings (or 'store of wealth') for migrant workers, but phases in the 'developmental cycle' of the household must also be taken into account. Herd size and composition influence the decision to sell, but there is contrasting evidence from different regions on whether or not large herd owners have a greater propensity to sell animals for cash. Many studies report that sales are occasional, driven by an immediate need for cash for the household, and often of an 'emergency' nature.

The role of stock is also influenced by the class identity of the owner. Livestock ownership is highly skewed in most areas, is often correlated with higher levels of crop production and with higher levels of income from non-rural sources, and is thus a reasonably reliable indicator of social differentiation. Class formation processes in the former homelands have

probably led to a concentration of a significant proportion of livestock in the hands of an elite composed of 'traditional' leaders, bureaucrats and businessmen, some of whom manipulate the communal tenure system for their own benefit.

Transactions between households involving livestock (for example, bridewealth payments, loaning, and co-operative arrangements for ploughing) are found in many areas, but their importance probably varies regionally. Prestige is still associated with high levels of ownership of stock, but again this is probably variable, and cultural context may be relevant. Although not yet researched, the outcome of gender struggles over household decision making is another factor influencing the uses of livestock.

LIVESTOCK AND RURAL LIVELIHOODS: A CONCEPTUAL MODEL

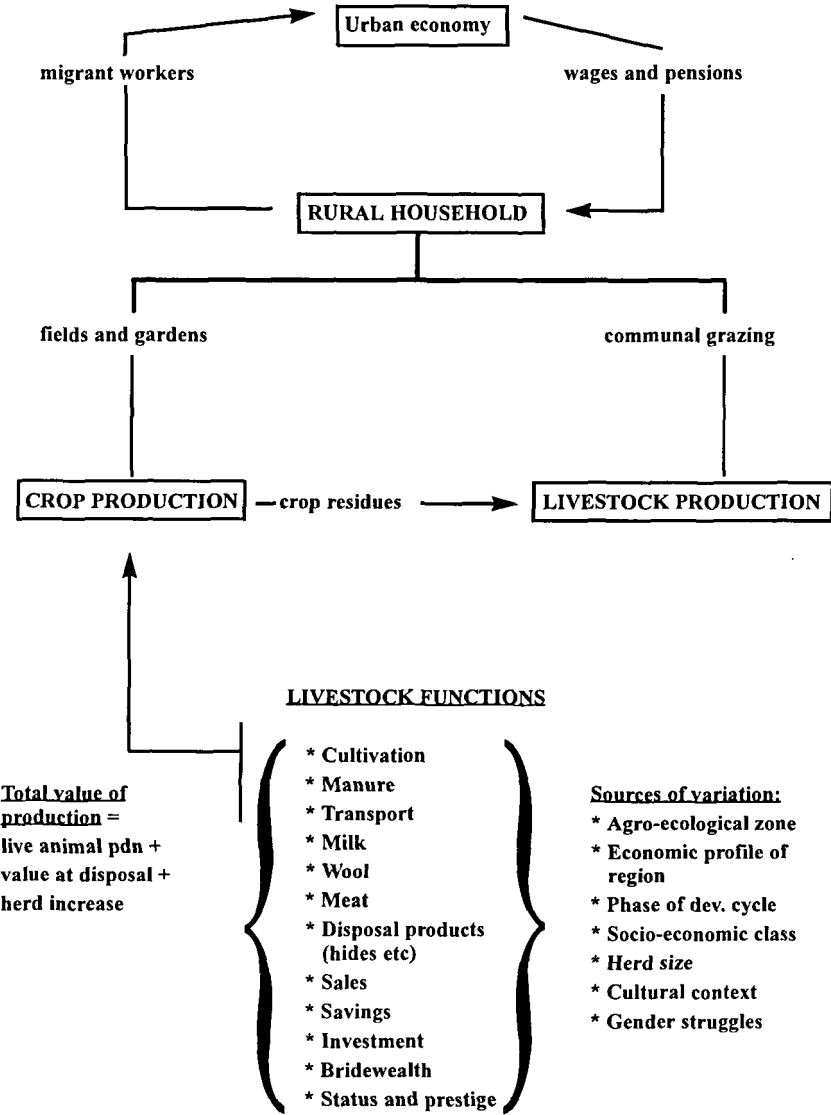
On the basis of both historical accounts and contemporary research a conceptual model of livestock production and rural livelihoods is offered in Figure 1. The model outlines a number of key aspects to be taken into account in analysis: (i) the range of possible functions that livestock can play, singly or (more usually) in combination with each other, and the value of livestock production when this range is taken into account; (ii) sources of variation in the relative importance of livestock functions (for example, by agro-ecological region, socio-economic class, economic profile of the region and so on).

The model can be used as a framework for both analysis and planning, and provides a checklist of key aspects to be taken into account. The analysis presented here suggests that anything less than a 'holistic' or integrated view of livestock production is likely to underestimate its importance in rural livelihood systems, and to overlook important objectives held by livestock owners. The model also assists analysis of the heterogeneity of livestock producers, both between regions and within local populations, a factor which will be critical in planning land redistribution and development programmes.

LAND USE AND RESOURCE MANAGEMENT

This section discusses three questions: are the high stocking rates found in black rural areas sustainable, or are they headed for ecological disaster? How do livestock herders actually make use of rangeland to sustain high densities of livestock populations? And is there a shortage of grazing land for rural households with livestock or attempting to enter into livestock production? All three are relevant in relation to emergent regimes of communal rangeland management and the axes of struggle identified above.

FIGURE 1
LIVESTOCK PRODUCTION AND RURAL LIVELIHOODS: A CONCEPTUAL MODEL



Stocking Rates and Ecological Sustainability

Many studies report high stocking rates on communal rangeland in black rural areas, often two or three times the recommended rate, or what is said to be the 'carrying capacity' of the land. Examples include Lyne and Niewoudt [1991] for Kwazulu; McKenzie [1984] for the Transkei; Barrowman and Klug [1982] for Vulindlela in Kwazulu; Gandar [1991] for Cornfields in Natal; Schmidt [1992] for Dryharts in Bophutatswana; and Vink [1986] for Lebowa. These data have given rise to a concern for ecological sustainability, seen to be threatened by serious 'overgrazing' (see citations in Tapson [1991]), and the perceived problem has often been linked to the underlying system of communal tenure [Boonzaier *et al.*, 1990].

Two recent reviews of the South African literature on stocking rates and sustainability have come to rather different conclusions. For Kwazulu, Tapson [1990; 1991] argues that warnings of ecological collapse due to overgrazing and consequent soil erosion have been made for 50 years, over which time a decline in primary productivity would have surely led to a decline in stock numbers and an increase in stock mortality. Data from a 15-year time series (1974 to 1988) shows an increase in stock numbers from 1.27 million to 1.515 million and a declining trend in mortality. Tapson also argues for the relevance of analytical models such as Walker's [1980] which propose that heavily grazed veld displays qualities of 'resilience' (in which stress may lead to considerable change but a return to an equilibrium state is still possible), albeit at the expense of stability. In support he cites McKenzie's [1982] research in the Transkei, which showed that grasslands grazed at twice the recommended rate contained an abundance of climax species and had a high basal cover, and Danckwerts and Stuart-Hill's [1988] work on the recovery of semi-arid grassveld after drought. On the basis of research findings Tapson questions the reliability and usefulness of standard tools for determining stocking rates (for example, the Veld Condition Score technique), and he also cites work on erosion [e.g. Venter *et al.*, 1989] which calls into question the view that heavy grazing leads to serious soil losses.

Shackleton's recent [1993] wide-ranging review of the literature covers some of the same ground as Tapson, but extends these arguments to communal grazing in moist (>800 mm annual rainfall), mesic (600–800 mm) and semi-arid (<600 mm) zones. Have grasslands changed as a result of constant high stocking rates? Shackleton concludes that in terms of both species composition and basal cover, a variety of research results demonstrate that moist and mesic grasslands show little change, but that some changes were evident in semi-arid zones – although here rainfall had

an overriding effect whatever the stocking rate. In respect of herbaceous primary productivity there is meagre and sometimes contradictory evidence, but again moist and mesic grasslands appear little affected. For all three criteria there was little difference according to the grazing system (for example, continuous vs rotational) used (see also Hoffman [1988] for the Karoo). Are the observed changes irreversible? Again, Shackleton cites research findings which demonstrate the resilience of heavily grazed communal rangelands, which often recover rapidly after drought or periods of rest. He concludes that either communal range is extremely resilient, or that recommended stocking rates (from 50 per cent to 25 per cent of those actually found) are too conservative.

Land Use and Local Knowledge

The two reviews cited make occasional reference to research elsewhere in Africa, and it is important to note that there is a growing literature in support of their conclusions [Behnke and Scoones, 1993]. This research also suggests that herding practices and local knowledge systems are central issues in the sustainability debate [Fry and McCabe, 1986; Scoones and Wilson, 1989; Oba, 1992; Scoones, 1995].

Behnke and Scoones [1993: 13] show how mobility can increase the overall carrying capacity within a region which incorporates a wide range of seasonally variable carrying capacities in different zones. This assumes a pattern of predictable environmental fluctuation. A similar argument is made by Sandford [1983: 33–6] for situations where stock movement takes place in response to unpredictable rainfall fluctuations, disease outbreaks, borehole breakdowns and range fires. In the former case pastoralists often follow regular transhumant routes (as is practised for example in southern Matabeleland in Zimbabwe, Botswana, Lesotho, and Maasailand); in the latter movement is more contingent and depends on herdowners preserving access to fallback areas.

There appears to have been relatively little detailed research on how grazing resources in South Africa's black rural areas are actually used, or on local knowledge of rangeland ecological dynamics. For the Transkei, however, McAllister [1986] has indicated that in Shixini ward in Willowvale district the informal leaders of sub-ward 'sections' (the senior men), may close areas of grazing to allow grass to recover, and use of grazing in areas controlled by sections other than one's own is allowed only after permission has been sought. One of the effects of Betterment planning, according to de Wet [1991], was to impose a rigid division between residential, arable and grazing land which 'deprived people of flexibility of land usage which was previously ecologically adaptive'. For the arid and semi-arid zones, Archer [1993] has described seasonal transhumance in the Richtersveld, and Cousins

[1995] reports that a community-based grazing management plan is being developed in Leliefontein on the basis of local knowledge and practices. These are indications that herders in South Africa, as elsewhere, pursue opportunistic strategies in their use of rangeland resources and that they base these on a fine-tuned understanding of their environments.

A Shortage of Grazing Land?

If communal grazing lands are not necessarily over-stocked (from the point of view of ecological sustainability), they are perhaps *under*-stocked from the point of view of rural households. As pointed out above, there are large numbers of stockless households in most black rural areas, and many herds are small and cannot supply critical functions such as draught power. At the same time, stock numbers in regions such as Kwazulu [Tapson, 1991] and Transkei [McKenzie, 1984; Beinart, 1992] have been relatively stable for some years, and may have reached some kind of ecological limit (perhaps understood as 'ecological carrying capacity'). Here livestock populations may be regulated by density-dependent factors acting on birth and death rates, but limited by density independent factors such as climatic variability [Scoones 1993; Tapson, 1991]. The implication is then that stockless households attempting to use increased income from formal or informal employment to invest in livestock of their own are constrained by the fact that grazing land is in short supply. Hence broadened access to multiple-function livestock benefits (other than by expanding existing arrangements between households which spread the distribution of those benefits), depends on improved access to rangeland resources, which must be included in land redistribution programmes.

LOCAL INSTITUTIONAL FRAMEWORKS IN RURAL SOUTH AFRICA

Rangeland resources are exploited by herders who move their animals across variable terrain, at different scales, and take account of both regular and irregular fluctuations in resource availability over time. However, local institutional frameworks create a context of both constraints and opportunities for individual herder decision making. In rural South Africa these are currently in flux for a number of reasons: the precise character of rural local government is yet to be decided; the role of 'traditional' authorities in formal structures of governance is unclear and contested; and legal frameworks for various forms of communal tenure are under review. This section briefly outlines the key issues in question.

Rural Local Government

South Africa's interim constitution makes provision for three levels of

governance (national, provincial and local), within a quasi-federalist system in which significant powers in most sectors are devolved to provincial governments. The division of powers and responsibilities between national and provincial levels is encountering many difficulties (for example, in relation to budgeting and development planning); with respect to agrarian reform it is highly problematic since land is defined as a national 'competency' but provinces have responsibility for agriculture. Local government is also a provincial competency, and the possibility exists of a variety of arrangements emerging in different parts of the country.

Most debate thus far has centred on local government for urban areas, and *rural* local government has received relatively little attention. Proposals for rural local government include those by McIntosh [1994], and Lund and Wakelin [1993]. These suggest a fourth tier of governance – a primary local authority, as a sub-unit of district councils. To be effective local government must be representative, accountable, with a viable fiscal base, and overcome the legacies of fragmented, centralised and un-coordinated administration inherited from the apartheid past [McIntosh, 1994]. This suggests significant support from central or provincial government for capacity building at local level, as well as financial support given the relatively weak economic base of most rural areas. Of particular importance is the delineation of the powers and functions of district councils and the primary bodies, with significant implications for management of common pool resources. By November 1995, when the first democratic local government elections took place, these implications had not yet been explored in any meaningful way (but see Westaway [1994] for a speculative discussion in the Namaqualand, Northern Cape context).

Traditional Leaders and Local Institutional Frameworks

The role of traditional authorities (chiefs and headmen) in an emerging democratic order is a controversial and highly contested issue in South Africa today. A key issue is their land allocation powers. The subordination of customary authorities to repressive state apparatuses, combined with corruption and repression, has undermined the legitimacy of these institutions [Hendricks, 1992]; (Levin and Weiner, this volume). Central to the mechanisms through which chiefs have maintained their power has been their control over land [Haines and Tapscott, 1988]. Levin and Mkhabela [1994] provide a detailed case study of these processes in the Northern and Eastern Transvaal Lowveld. One example of corruption [*ibid.*: 225] involves the dispossession of communal pasturage by the chief in order to secure private grazing for his own herd of cattle.⁵ Chiefs have also used their salaried employment, privileged access to land and livestock, and coercive extraction of levies and taxes to engage in 'accumulation from above', and

have thus been central to processes of social differentiation.

The key question is what formal powers are accorded to 'traditional' leaders in emerging local government structures, and whether these include authority over land allocation, land use and related development planning. Also in question is their role in natural resource management. One possibility is that chiefs play an advisory role only, and sit on local councils or land boards in an *ex officio* capacity. The ANC has been somewhat ambivalent on these issues, and the outcome is by no means clear. The Congress of Traditional Leaders of South Africa (CONTRALESA), which is allied to the ANC, is arguing for the retention of land allocation powers by chiefs. In some areas, such as the Eastern Cape, there is conflict between CONTRALESA and organisations such as the South African National Civics Organisation (SANCO), which argue that local government structures must consist only of democratically elected representatives.

Legal Frameworks for Communal Land Ownership

The RDP [ANC, 1994] commits the new government to 'development of new and innovative forms of tenure, such as Community Land Trusts, and other forms of group land-holding', and asserts a need to recognise and protect a diversity of tenure forms. Some communities acquiring land through a restitution claim (for example, the Mfengu in the Eastern Cape) or through a state-supported redistribution process (for example, Cornfields-Tembalihle in Natal – see below) have taken ownership through Trusts established under existing legal models, but these are widely acknowledged to be problematic in their complexity, administrative requirements and inaccessibility to poor communities.

The new Department of Land Affairs is initiating a national programme to promote tenure security, and some progress has been made in the drafting of a framework for legislation on communal ownership of land. This aims to be both facilitative and regulatory in an attempt to reconcile public interests and the narrower private interests of communities and individuals. It attempts to be flexible in relation to legal structure, land usage, rights and forms of tenure, and forms of governance, and to allow for a continuum of alternative models. The proposed Act would create a new type of institution known as a 'Communal Property Association'.

There is an urgent need for a more appropriate legal framework for communal tenure. The policy framework for the Pilot Land Reform Projects recently announced in all nine provinces requires groups acquiring land to be legally constituted entities, and it is not yet clear what forms this may take. More generally, the proposed framework would appear to have the potential to facilitate the emergence of viable common property arrangements. However, significant support needs to be provided for the collective

decision-making processes leading to the establishment of a Communal Property Association (for example, through offering facilitation, mediation and advice services) if this potential is to be realised.

COMMON PROPERTY STRUGGLES: CASE STUDIES

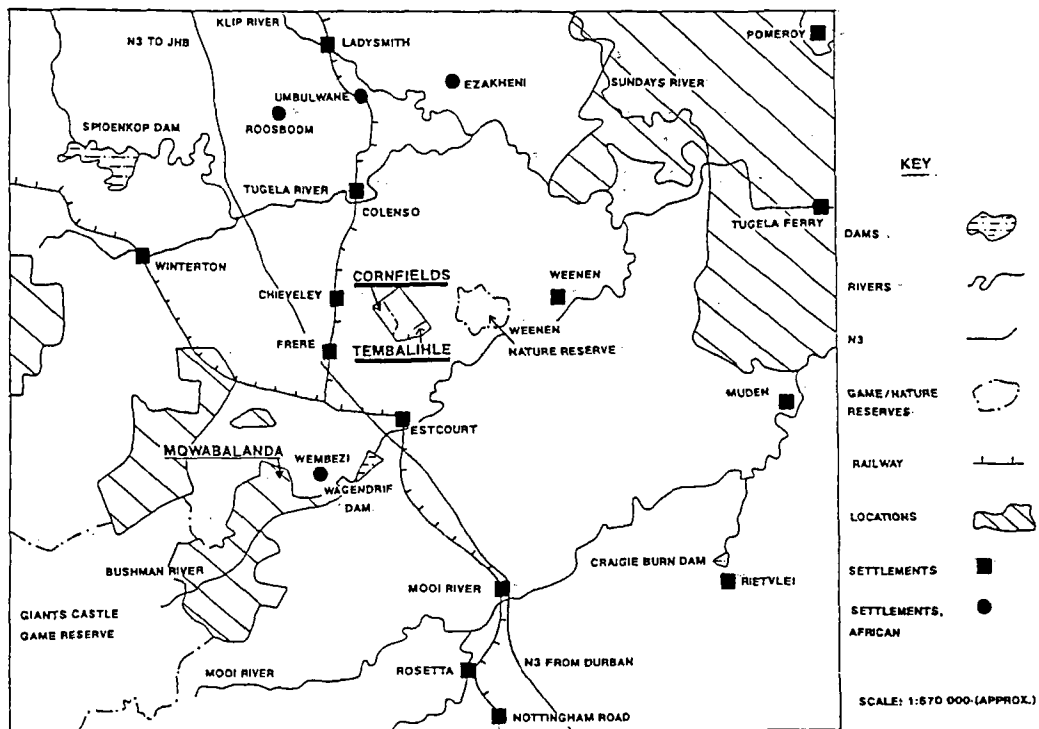
Data supplied by affiliates of the National Land Committee (NLC) indicate that struggles over communal grazing and other common pool resources are widespread. Livestock and grazing are at the centre of disputes between commercial farmers and evicted labour tenants in the Eastern Transvaal (see also *Land Update* 33, 1994) and in Natal (*New Ground* 19, 1995). Grazing land formerly owned by the South African Development Trust (SADT) is claimed by competing groups in the Queenstown area of the Eastern Cape, and the dispute has remained unresolved since 1990. Similarly, four different communities in Namaqualand are claiming rights to grazing land on state owned farms along the Orange River. Also in Namaqualand, residents of the arid Richtersveld area were granted controlled access to the newly proclaimed Richtersveld National Park in 1991; they are adhering to agreed stock limitations, but have not yet been granted access to adjacent state land as also agreed as part of the settlement. In the Transkei residents of Dwesa and Cwebe have invaded neighbouring coastal nature reserves which they claim were forcibly taken from them in the 1950s, and have begun to harvest shellfish and fuelwood and to graze their cattle. They were recently granted controlled access by the provincial government, but are pursuing their claim and state that they wish to develop the reserves as tourist enterprises (*Land Update* 36, 1995). This section analyses two cases where detailed information is available.

Cornfields – Tembalihle

In Natal, two freehold communities which have large populations of freehold plot owners and tenants have recently bought land from neighbouring white farmers under Act 126 of 1993,⁷ which makes provision for a government grant covering 80 per cent of the land price, plus a subsidised loan. Disputes over common pool resources have been a major feature of relations between black and white landowners, and it was these that prompted negotiations over land acquisition.

In both Cornfields and Tembalihle the population is highly dependent on urban migrant remittances and state pensions, and on livestock to a lesser extent. In late 1989 a survey in Cornfields revealed that there was a 'considerable degree of income inequality', with 30 per cent of sample households receiving an income of R400 per month or less, but 20 per cent earning R1,000 per month or more, and another four per cent earning more

MAP 1
CORNFIELDS AND TEMBALIHLE



than R2,800 per month [Bromberger, 1991: 21]. Some 60 per cent of the sample owned cattle or goats or both, but only 36 per cent had cattle (with a mean herd size of seven). Landowners owned about three times as many cattle as tenants and nearly twice as many goats [Gandar, 1991: 39]. Only one family in ten cultivated fields. Gandar estimated that cash earnings from agriculture amounted to an average of only R4 per month per household, and the amount of meat provided was small. Milk, draught power and manure were not assessed. Nevertheless, 80 per cent of respondents said they regarded themselves as belonging to 'farming families', and (male) farmers at meetings 'were emphatic that they regarded themselves as stock farmers'; in addition 'they were adamant that they would not reduce their herds and said that access to grazing is one of their most urgent needs' [Gandar, 1991: 41].

Both communities are surrounded by white farms and were designated as 'black spots' in the 1970s and threatened with removal (see Map 1). With the assistance of an NGO (the Association for Rural Advancement, AFRA) removals were successfully resisted and the communities were officially 'reprieved' in 1990. However, evictions of labour tenants from white farms in the district in the 1960s and 1970s have resulted in rising populations and extreme pressure on the local resource base. By the 1990s there were about 4 000 people living on 593 ha in Cornfields, and about 2,700 people living on 242 ha in Tembalihle [AFRA, 1993].⁸ Residents began to rely heavily on neighbouring white farms for their grazing, water, firewood and thatching grass. This led to cattle impoundings by white farmers, heavy fines and pound fees, arrests of women collecting wood and water, and claims for damages by community members. In times of drought the tensions threatened to spill over into violent conflict.

In the early 1990s white farmers in the district launched a Biosphere initiative which aims to establish a conservation and ecotourism area on 56,000 ha, and eventually encompass 150,000 ha. Cornfields and Tembalihle fell within the proposed Tugela Biosphere Reserve. To resolve the ongoing conflicts, and provide a more secure context for the Biosphere, farmers agreed in 1993 to negotiate with the two communities for the transfer of some of the surrounding farms, provided that they would be adequately compensated. By 1994 agreement had been reached to transfer 8,500 ha to the communities at a cost of around R6 million (about 90 per cent of market value). In terms of Act 126 the state has agreed to pay 80 per cent of the costs, residents have raised 5 per cent as a down payment, with the other 15 per cent as a loan from the state. The guidelines accompanying the Act require groups acquiring land to set up a legal body or 'community government structure', to assume responsibility for payment of the balance of the purchase price, and also to control livestock numbers, manage

grazing land, and manage other 'development initiatives' by the group (for example, the use of clay, firewood, etc.).

Negotiations between community representatives (assisted by AFRA), white farmers and officials of the Department of Land Affairs have been accompanied by an intense process of internal debate and decision making within Cornfields and Tembalihle. In September 1993 a Participatory Rural Appraisal (PRA) exercise was carried out in the two communities by AFRA staff and others. This included discussions in different wards on the questions of form of ownership and on criteria for membership, as well as developing a community profile and investigating local resources and land uses [AFRA, 1993; *Midnet*, 1994: 22-3]. There was general agreement that land should be held communally, and that all current residents should become joint 'owners'. Elected committees within both communities then initiated debates on whether or not to purchase under Act 126, and eventually this was agreed to. Another PRA exercise in December 1993 investigated local opinions on the precise definition of membership, on the rights and obligations of members (with a particular focus on common pool resources), on financial contributions to make the five per cent down payment, and on the restrictions imposed by the Act (for example, complying with recommendations made by the Department of Agriculture with regard to stocking rates). Also debated were the responsibilities, powers and composition of the committee to be elected to manage the affairs of the new landholding body, and whether or not the existing committee should fulfil some or all of these new tasks.

All these proved to be controversial issues, and it was difficult for residents to reach agreement. This was partly because of the diversity of potential members: both present and absentee landowners (that is, title deed holders), tenants on existing land, labour tenants on farms to be purchased, other labour tenants, and those members of the communities who agreed to be removed by the state in 1988. The rights of unmarried women was also controversial. Questions of grazing rights and the regulation of stock numbers by an elected committee, but subject to recommendations made by state officials, were particularly difficult, and decisions on these were deferred to a later date. The representivity of the existing committees, comprising mostly older men, has been a sensitive issue. Social differentiation, contrasting opinions on key issues, and power plays by opposed interest groups have been problematic aspects for the NGO (AFRA) which has attempted to play a facilitative role in the process.

In January 1994 a decision was made to form a landowning trust in each community, and in the next few months more meetings were held to formulate the deeds of Trust and develop criteria for choosing Trustees. Here the issue of the role of tenants and of women as particular interest

groups again aroused heated debate; both groups were eventually included as potential Trustees, but only two women were elected to the Trust. Difficult questions of detail (for example, on regulations for the use of common pool resources) were left for communities to formulate into by-laws at a later stage as their management systems developed.

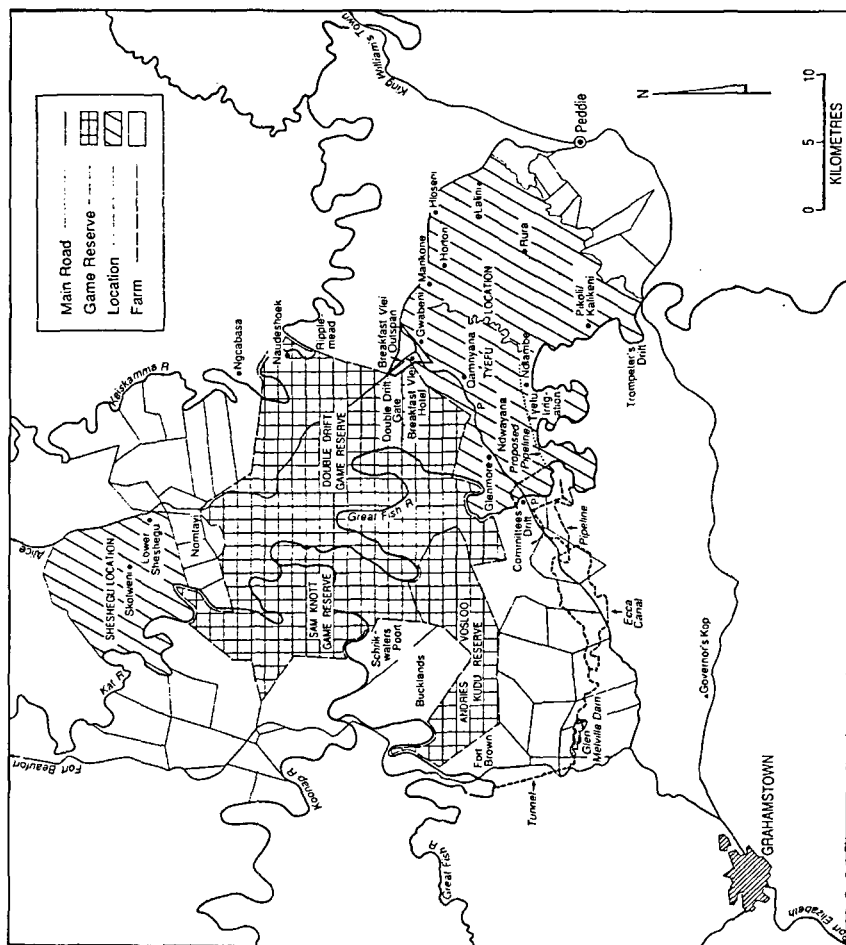
Trusts were formed in May 1994, and ownership of the farms changed hands in early 1995. In September 1994 AFRA, other service NGOs and the committees jointly investigated land use planning options in both communities, and the issue of stock limitation was again debated by different groups. There appears to be support amongst some community members for stocking rate regulations, and a livestock tax has been suggested as a possible mechanism. No by-laws governing resource utilisation have been formulated to date. The boundary between land to be taken possession of by Cornfields and that by Tembalihle is unclear in one locality, and negotiations on this issue continue. In Tembalihle there is an ongoing dispute between households which have paid their full contribution to the purchase of the farms and those which have not, and this conflict may be the underlying reason for damage to fencing which demarcates grazing areas.

The Mid-Fish River Basin'

The mid-Fish River Basin in the Eastern Cape displays in a particularly stark form many of the characteristics of rural South Africa which are likely to make resolution of common property struggles difficult. It is located at the boundary between the former Ciskei homeland and white-owned commercial farmland, and comprises a complex mosaic of contrasting land tenure and land use systems (Map 2). These are the result of a long history of conquest, white settlement and development, black impoverishment, out-migration, resistance and land struggles over the past 150 years in what was originally known as the frontier zone, and subsequently as the Border region. Also important is the agro-ecology of the area. In general it is semi-arid and marginal for cropping: rainfall is low and unreliable (400 mm to 500 mm), high rates of evaporation and run-off further reduce the availability of water, and droughts are common. Soils are shallow, infertile and erodible, slopes are steep, and the natural vegetation is dominated by woody shrubs of low value as forage.

Livelihoods, land use and tenure systems: In 1835 a parcel of 'neutral' territory east of the Fish River was ceded to 'loyal Fingos' (Mfengu) who had fought alongside the British; under the 1913 Land Act this was scheduled as Fingo's Location. The rest of the area was successively allocated to white settlers and their descendants on either side of the Fish

MAP 2



River. In the run-up to Ciskei's 'independence' in 1982 the white-owned farms to the east of the river were bought up by the South African government and incorporated into the Ciskei, either as 'released' farms or into the L.L. Sebe Game Reserve. From 1979 the state began to forcibly remove people from so-called 'black spots' in the Eastern Cape to the area, and the 'rural township' of Glenmore, consisting of 4,500 people, was established on a released white farm adjacent to the Fish River. At present the area contains four distinct units of settlement, tenure and land use:

(a) The 'released' farms are either held by civil servants from the former Ciskei government under leasehold tenure (mainly for extensive livestock production), or are unused. They contain forage resources which are better than average for the zone, but the legitimacy of the leases is now in question given the re-incorporation of the Ciskei into South Africa.

(b) There are three nature reserves, managed either by the state or by a Ciskeian parastatal. In addition to the former L.L. Sebe Game Reserve (subsequently renamed the Double Drift Game Reserve) to the east of the river, are two reserves to the west formed in the 1970s and 1980s from former commercial ranches. The reserves were generally heavily grazed prior to their proclamation, but today carry more vegetation than the surrounding farms, partly because they contain high lying areas with generally higher forage production potential than elsewhere in the zone. The reserves protect some rare large herbivores and areas of unique Valley Bushveld.

(c) White farms to the west of the Fish River, under freehold tenure, are used mostly for mohair production from Angora goats on extensive range. About 260 ha is under irrigation using water from the Fish-Orange scheme,¹⁰ the main crop being lucerne for farmers' livestock or for sale as a cash crop. The average net white farm income in 1991 was estimated at R71,000. However, drought, depressed markets and high transport costs are severe problems. As is generally the case within white agriculture, the withdrawal of high levels of state subsidy and support is now putting the economic viability of these enterprises into question. Workers on these farms are poorly paid, and only a quarter have permanent full-time employment. Population densities on the farms are similar to those found on land in the previous two categories (about 3–6 persons/km²).

(d) In Tyefu and Sheshegu Locations land is held under a form of communal tenure. Population densities are very high (over 70 persons/km²), and many of the common features of Southern African labour reserves are present:

systematic underdevelopment of agriculture and of infrastructure and services, high rates of labour migration, heavy reliance on state pensions or disability grants (and remittances to a lesser degree), high levels of local unemployment, and high dependency ratios (that is, many children and old people). Agriculture is marginal as a source of income for the majority of households. Cultivation of rain-fed crops has steadily declined since the 1950s and only a few fields along the Fish River and on the plateau are still being used; these are planted mostly to maize. A minority of households cultivate home gardens. Much household labour time is spent on collecting firewood and water for domestic use. The population is highly differentiated, with markedly skewed distributions of wealth and livestock, and villages are also internally divided by gender, clan membership and political affiliation.

The most important form of crop production takes place on the Tyefu Irrigation Scheme, on alluvial terraces adjacent to the Fish River. The scheme was begun on 121 ha in 1977, using water from the Fish-Orange scheme, and expanded to 420 ha during the 1980s. Tyefu is a typical showcase bantustan irrigation scheme, achieving little success despite massive capital outlays. From its beginnings the scheme has been plagued by conflict between local residents and management, as well as by problems of economic viability given distance from markets. The Scheme is currently managed by the Ciskei Agricultural Corporation.¹¹ The scheme includes 33 small-scale commercial farms (4 ha), 223 subsistence food plots (0.25 ha) and 666 allotments (0.1 ha). Commercial 'tribal estate farms' are now being phased out.

Most of the land in the communal areas is used for extensive grazing of herds of cattle (27 per cent of all livestock) and sheep and goats (73 percent). However, the distribution of stock is highly skewed, with a minority (about 22 per cent of households) owning more than 90 per cent of livestock. Some livestock owners are absentee migrants who employ local residents as herders. Herds are multi-purpose in character. Stocking rates are generally high but variable in response to rainfall, with populations declining rapidly in drought years but bouncing back in years of high rainfall. Rangeland is heavily grazed and Karroid dwarf shrubs have replaced more palatable grasses and shrubs, leading agricultural extension staff and botanists to describe the area as 'overgrazed and degraded'. Erosion and deforestation around villages are also seen as major problems.

In recent years high levels of unemployment in urban areas have led to a number of people returning to their rural community of origin, where they are not seen as having forfeited their rights to fields or the use of communal land. Some have gained access to pension incomes or remittances through kinship networks, others have tried to gain access to land on the irrigation

scheme or sought employment on neighbouring white farms.

Despite the unpromising nature of the agro-ecology many local residents would like to remain in the area and to see economic development take place locally. High on the list of expressed needs are jobs (in local industries, civil service posts, and in the nature reserves), new infrastructure (for water supply in particular) and improved services. Land for village irrigation projects and for livestock grazing is also seen as vital; land shortages are seen as the primary cause of environmental problems, and researchers in the area have characterised the situation as one of 'land hunger'. Legitimate institutions for local governance are seen as critically important.

Institutional frameworks: The new Eastern Cape province as a whole is currently experiencing a traumatic transition to a new institutional and administrative framework, and the mid-Fish Basin is no exception. The inherited framework is highly divided and fragmented as a result of apartheid legislation, and in a state of near collapse in the case of those areas which fell within the former Ciskei. In Tyefu and Sheshegu the tribal authority system is widely rejected and regarded as an oppressive apartheid institution used to impose bantustan rule. However, village headmen continue to draw salaries, and to receive support from a minority faction. The majority favour ANC aligned residents associations ('civics'), but these are not officially recognised. Local organisations which have had some support (for example, the Lower Fish River Development Project Steering Committee) have had no statutory powers. The province has been racked by a dispute between chiefs, on the one hand, and the South African National Civics Organisation (SANCO), on the other, on the role of traditional leaders within local government.

To the west of the Fish River, institutions for the support of white farmers have functioned fairly effectively (for example, drought relief bodies, agricultural extension services, Farmer's Associations and Soil Conservation Committees). How these will articulate with other bodies within the area for purposes of administration, development planning or natural resource management is not at all clear. Currently there are no institutional structures in the zone which enable different groups to meet, negotiate, resolve conflicts or make joint decisions. Similarly, the management of nature reserves is split between the former Ciskeian parastatal and the Cape Nature Conservation authorities.

Struggles over land and resources: Common pool resources such as water, fuelwood, vegetation and grazing land are important components of the overall livelihood system of the densely populated communal areas. Given

the high levels of stress of both the resource base and people, it is not surprising that struggles over these resources are strongly evident at present and promise to become even more so in the near future. These struggles are taking, or are likely to take, a number of different forms:

Land claims: residents from different villages within Tyefu and Sheshegu Locations claim that various portions of land within the area historically belonged to them. Claims based on more recent events, and which are therefore the most likely to be addressed either through land restitution or the emergence of co-management arrangements with existing owners, are made in relation to Double Drift Game Reserve and to some of the 'released' farms. One small group of households has refused to be removed from Double Drift and still graze their herds within its boundaries. Some people feel that even the white farms should also be opened up for resettlement. There is thus strong pressure mounting to extend the area under communal tenure.

Illegal land use: although fuelwood collection within the reserves is allowed (under supervision), residents of villages also hunt illegally for wild meat within the nature reserves, and graze their cattle on 'released' farms. These activities are justified in terms of perceived rightful ownership to the land.

Stock impounding: in drought years livestock from Tyefu cross the Fish River and are sent to the pound in Grahamstown (40 km distant) by white farmers. Their owners must then pay fines before the animals are released, and also incur prohibitive travel costs. Feelings on this issue run high partly because communal grazing is in short supply as a result of processes of historical dispossession.

Internal conflicts: there are currently disputes over land rights within some villages in Sheshegu Location. In the past there have been tensions over grazing land between residents of Ndwanyana village in Tyefu and those of Glenmore township, although this has abated somewhat recently. At present most communal rangeland may even be under a form of 'open access' rather than even 'minimum' common property. Given the legacy of political and other divisions within the area, initiatives to develop resource management institutions in future are likely to generate localised disputes over rights, duties and authorities. There is also the potential for disputes over land claims between different village communities within the area.

Disputes between local communities and external authorities: relations

between local residents and officials of state and parastatal bodies have long been plagued by hostility and lack of trust. Betterment planning, for example, was fiercely resisted in the area and as a result never implemented. There is great potential for similar conflicts to emerge in future, given contrasting perceptions of central issues such as stocking rates and management systems. Residents are adamant that they do not want outsiders to set limits on stock numbers.

CONCLUSION: LESSONS FOR AGRARIAN REFORM

These case studies tell us something about the concrete forms which struggles over common property are taking on the ground in contemporary South Africa, and their roots in the social relations of production. Are there any general lessons to be drawn, and what are the wider implications for agrarian reform policies?

First, these case studies point to *the necessity of understanding the origins of such struggles in differentiated rural livelihood systems in which common pool resources are a vital component of production and reproduction for many households, but access to which is unevenly distributed*. Natural resource use is thus associated with structured inequalities at the local level, arising from class-based differentiation, gender relations, divisions between landowners and tenants or squatters (for example, in Cornfields-Tembalihle), and political authority (for example, privileged access for tribal authorities, as in the Eastern Transvaal villages reported by Levin and Mkhabela [1994]). This complicates enormously the task of developing viable common property management arrangements which attempt to make provision for the policy goals of equity and democratisation.

Distinguishing only between the rich (with commercially oriented herds) and the poor (with multiple function herds) runs the risk of oversimplifying the situation in many rural communities. Different kinds of producers, emphasising different functions, and possibly including some specialised single function herds or flocks, may be present within a rural community, and represent contrasting 'recommendation domains'. Heterogeneity of producers will require similarly differentiated policies and programmes, although clearly the most disadvantaged groupings will need to be given priority.

A major question is how the stockless and small herd owners can be assisted to gain wider access to livestock. Mechanisms which have been suggested (and in some cases tried out) in neighbouring countries such as Zimbabwe include credit programmes for livestock purchase [Chinemba, 1989], support for local and inter-regional livestock markets [Sandford, 1982], and support for existing as well as innovative draught-pooling and

equitable loaning new arrangements [Cliffe, 1986; Scoones and Wilson, 1989].

Secondly, *it is important to understand the economic rationale for high stocking rate systems on communal rangeland, derived from the multiple purpose character of livestock production.* A 'holistic' analysis of multi-purpose production systems suggests that rural people attach importance to their herds and flocks because of a sound assessment of their overall social and economic value. The implication is that rural livelihoods can be improved by a broadening of access to livestock and grazing land, which must therefore assume a central role in agrarian reform.

Redistribution programmes need to investigate the extent of underutilised land suitable for extensive grazing on commercial sector farms, or even wildlife areas, and possible ways for communities to gain access to it. Some of these may not involve relocation of households – lease of grazing is a well established practice, and in Zimbabwe the Model D resettlement scheme in Matabeleland was intended to provide rotational access to a former commercial ranch by neighbouring villages.¹²

Within redistribution programmes, agencies providing support services should recognise the trade-offs which commonly have to be made within agro-pastoral systems. Some of these are between different livestock functions, for example, between milk production and herd growth, or between milk production and the provision of draught [Scoones, 1990]. The critical decisions on these issues are made by the producers themselves, but can be usefully supported by outside agencies with insights into the character of production, or frustrated and undermined if they are not understood. Other trade-offs are in relation to land use. High potential areas with large proportions of potentially arable land present a series of difficult choices. If draught is provided by oxen then grazing land for the herds which reproduce them is required, but if affordable tractor services are available then the land may be able to support a larger number of crop producing units. In low potential areas the potential benefits from wildlife production in its widest sense (including hunting and tourism) must be weighed against those from multi-function livestock production.

In relation to both kinds of trade-offs realism demands that the full value of production, as well as all costs, be properly accounted for. There are probably a number of regional variations, in some cases due to agro-ecological differences between zones where crop production has greater potential and others where it is more marginal, which will also have to be taken into account.

Thirdly, *struggles over common property resources such as rangelands in contemporary South Africa are tending to occur along several axes simultaneously, or in close succession.* This adds to the complexity of these

situations, posing problems for both analysts, policy makers and staff of implementation agencies. For example:

- * In both cases discussed here a fundamental struggle is to *gain secure rights to land with common pool resources*. The overlap between a generalised struggle for land and the specifics of common property struggles, as discussed in this article, has perhaps led to a neglect of the some aspects of the latter by land activists both at local level and in support organisations.
- * *Defining membership of the user group* has proved a troublesome issue in Cornfields-Tembalihle, and is likely to be so in all cases where trusts or other formal land ownership bodies are formed. In some rural communities the rights of tenants are likely to be a contentious issue, and whether or not rights are defined in terms of households or adult individuals (which allows for clear provision for gender equality) is also likely to be controversial.
- * *Boundary disputes* have occurred in many cases in connection with basic land claims, but may remain a problem between different groups acquiring land or rights of access, as in the mid-Fish River basin and in Cornfields-Tembalihle.
- * *Defining operational rules for resource use* has mostly been deferred to a later date in the cases described here, but is likely to prove contentious – as in the discussion of stocking rate limitations in Cornfields-Tembalihle. Controls over resource use which may have existed in the past have disappeared in many areas, and emergent common property regimes will sometimes have to innovate in the face of what may be *de facto* 'open access' situations such as that found in the mid-Fish River basin.
- * *Authority for rule enforcement* has been a difficult issue in Cornfields-Tembalihle, with debates over the composition and powers of elected committees. Where there are tensions between civic associations and 'traditional leaders', as in the mid-Fish River zone, this could prove to be particularly controversial, and rule enforcement through appeals to elected authorities could well provoke conflict rather than assist resolution of disputes.
- * *Relationships with external authorities and agencies* in respect of common pool resource management is likely to become problematic soon after rights to land have been secured, eg. when land use planning begins to take place and as operational rules begin to be defined. The

lack of clarity on the structure of rural local government again poses potential problems. Tensions over the issue of stocking rate regulation and other requirements of Act 126 have been experienced in Cornfields-Tembalihle. In the mid-Fish River Basin a history of tension and conflict between community members and authorities over betterment schemes, the management of Tyefu Irrigation Scheme, and access to resources within conservation areas will have to be overcome; contrasting understandings and definitions of environmental degradation and appropriate solutions could well prove controversial in such cases.

The implication here is that all the potential axes of conflict over common property need to be borne in mind by policy makers and implementation agencies from the outset, and planned for in a systematic manner. This could mean using a discourse of 'community identity' to help secure rights to land, while simultaneously promoting internal debates and negotiations between potentially opposed interest groups within 'communities'. An analysis which recognises the reality of social differentiation, in its various guises, will assist in the design of more effective interventions.

Fourthly, the protracted process of negotiations, investigations and collective decision-making within Cornfields-Tembalihle demonstrates that *attempts to develop viable common property regimes must be recognised as being time-consuming, messy and contested in character*.¹³ 'Quick fix' and blueprint solutions are unlikely to resolve conflicts, and will probably favour the interest groups which currently hold power and wealth. There is an important role for outsiders (for example, AFRA in Cornfields-Tembalihle) as facilitators of local decision-making processes, but this is not an easy task in differentiated rural communities comprising opposed factions and interests. Outsiders also have their own agendas which influence their interventions, and these need to be openly acknowledged. This often becomes clear in relation to women's rights to land and livestock and their participation in community decision-making, when patriarchal institutions demonstrate their resistance to arrangements premised on the gender equity promised by South Africa's new constitution.

In conclusion, the evidence presented here suggests that conflicts over common property are likely to become a key issue in land restitution, land redistribution and tenure reform programmes. Emerging views on common property reinforce the need for an approach which lends active support to local level processes of decision making and institution building, as is already emphasised in government policy documents such as the RDP and guidelines for Pilot Land Reform Projects. However, it is also important to stress that political and ideological struggles will be integral to such processes. As found in the case of Cornfields-Tembalihle, participatory

appraisal and planning methodologies can be emancipatory if they open up a space within which previously disempowered groupings (for example, women) can articulate their views, but this space is likely to be contested. Reconstruction and development in rural South Africa will have to continue to grapple with difficult issues of political economy.

NOTES

1. This study uses the concept of 'common property' in the restricted sense defined above, and does not take it to refer to forms of common ownership in general (in which, for example, individual usufruct of residential or arable land is granted under forms of communal tenure). Bruce [1986] clarifies these distinctions in his discussion of tenure in the African context; in South Africa there is currently a tendency to conflate these differences in discussions of land rights and tenure.
2. Space precludes a review of the changing role of livestock in rural production and social relationships in the pre-colonial and colonial periods, and in the era of capitalist industrialisation; see Cousins [1994: 2].
3. These refer to the former bantustans or 'homelands' created by segregation and apartheid policies, and which since 1994 have been re-incorporated into South Africa and its nine new provinces.
4. Schmidt argues that in the long run the rising costs of keeping large numbers of animals (increased mortality and decreased milk yields caused by 'overstocking' and reduced 'carrying capacity') will outweigh the benefits, leading to a search for alternative forms of investment, and voluntary destocking. This is a dubious argument given experience elsewhere in Africa [Behnke, 1994].
5. As noted above, Vink [1986] refers to perceived degradation of communal grazing in Lebowa as a 'tragedy of the chiefs'.
6. Information supplied by the Association for Rural Advancement (AFRA).
7. The full title of the Act is the 'Provision of Certain Land for Settlement Act of 1993'.
8. Bromberger [1991: 8] estimates that in Cornfields in 1988 there were 158 landowner households and 756 tenant households, that is, a ratio of 1: 4.8.
9. Data for this section is derived from Ainslie *et al.* [1994].
10. Water in the Fish River is saline and from the mid-1980s water from the Orange River has been pumped in, at great expense, to dilute it and make it suitable for irrigation.
11. In many ways the irrigation scheme constitutes a distinctive tenure and land use system of its own (Ainslie -personal communication).
12. The many problems encountered in attempting to implement this particular scheme [Robins, 1992] should not obscure the possibilities generated by the underlying principle [Cliffe, 1986].
13. Thanks to Tessa Cousins for this insight.

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